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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,960	09/30/2003	Geoffrey Clive Grimwood	WPT1.PAU.01	8129

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EXAMINER

DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,960

Applicant(s)

GRIMWOOD, GEOFFREY CLIVE

Examiner

Joseph W. Drodge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0606.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

ALLOWABLE SUBJECT MATTER

Independent claim 1, and claims dependent therefrom, are now deemed to distinguish over the prior art of record in view of "the transducer located in or on the inner surface of said fixed outer casing for monitoring the conductance...said transducer comprising at least two electrodes set in an electrically insulating material and having a distance therebetween. Wardwell, as argued in the 6/19/2006 Remarks generally comprises electrodes outside of a centrifuge and basket; Leung, while teaching a plurality of transducers or sensors located within an outer casing of a centrifuge including conductivity transducers, does not suggest a conductivity transducer comprising a pair of electrodes set in an electrically insulating material and located on the inner surface of the casing. Joshi, suggests one conductivity sensor located on an inner surface of the outer casing of a centrifuge cooperating with another sensor located outside of such casing in a surrounding structure.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung patent 6,063,292 in view of Joshi et al patent 6,213,928.

Leung discloses perforated basket 38/36, outer casing 40, liquid supply means 20 and conduits upstream and downstream of the flow meter 206 (column 10, lines 17-26), a plethora of signal producing sensors and transducers for monitoring parameters of fluids and solids both within and in the streams expelled from the centrifuge (column 9, lines 8-35) and control devices for controlling operations based on output from the sensor and transducer signals (column 9, lines 37-62).

For claims 11 and 12, column 10, lines 19-25 infers presence of at least three conduits (or "pipes") for handling feed streams (feed stream conduit, wash stream conduit upstream of the flow rate and density meter, and wash stream conduit downstream of the flow rate and density meters).

For claim 12, see also temperature sensors (column 9, lines 13-14 and column 2, lines 35-65).

Regarding both claims 11 and 12, Leung also discloses capacitor and conductivity sensors and probes (column 3, lines 25-65 and column 9, lines 8-35) and transducers within the outer casing. The reference discloses that transducers/sensors that measure parameters related to solid/liquid content within the casing may include a transducer to measure density or streaming current of the filter basket and medium (column 4, lines 9-12) or optical devices to measure solid filter cake surface and interface locations, i.e. thickness of the sludge or cake (column 3, line 67-column 4, line 9).

Claims 11 and 12 differ in requiring that at least one of the transducers, which is located on an inner surface of the casing is operable to measure parameters within the

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outer casing is capable of measuring conductivity. Joshi et al teach conductivity measuring sensors, one of which is located on the inner body or casing of a centrifuge for determining conductivity (column 3, lines 23-30 and column 4, lines 32-45 and 60-67 and also column 5, lines 19-24). It would have been obvious to one of ordinary skill in the centrifuge arts to have employed a conductivity sensor, as one of the transducers of Leung, as suggested by Joshi, so as to measure even small changes in values of liquid/solid content and cake thickness in an accurate manner.

Amended language of claims 11 and 12 pertaining to liquid flowing down the inner surface of the centrifuge casing is given little patentable weight, since there is no structure corresponding to such property or function.

Applicant's arguments with respect to claims 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

August 5, 2006


JOSEPH DRODGE
PRIMARY EXAMINER